



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,796	08/04/2003	Timothy P. Beaton	05516/045003	7248
7590 08/12/2004 ROSENTHAL & OSHA L.L.P. Suite 2800 1221 McKinney Street Houston, TX 77010			EXAMINER GAY, JENNIFER HAWKINS	
			ART UNIT 3672	PAPER NUMBER

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/633,796

Applicant(s)

BEATON, TIMOTHY P.

Examiner

Jennifer H Gay

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-13 is/are allowed.
- 6) ☒ Claim(s) 14-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

The Preliminary Amendments filed 03 December 2003 and 08 March 2004 have been entered and the Office Action presented below is based on the changes made in the above amendments.

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

2. The abstract of the disclosure is objected to because the abstract includes the implied phrase "is disclosed". Correction is required. See MPEP § 608.01(b).

3. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Art Unit: 3672

Claim Objections

4. Claims 10, 11, and 16 are objected to because of the following informalities:
- In line 5 of claim 10, --a-- should be added before “selected”, “positions” should be changed to --position--, and “orientations” should be changed to --orientation--.
 - A further note regarding claim 10, while at least one of the pilot blades *is* azimuthally spaced apart from and longitudinally ahead of the at least one radially most extensive reaming blade, such a description can not be changed to refer to all of the pilot blades as at least one of the pilot blades is not azimuthally spaced from the at least one radially most extensive reaming blade.
 - In line 2 of claim 11, --a-- should be added before “selected” and in line 3 of the claim, “positions” should be changed to --position-- and “orientations” should be changed to --orientation--.
 - Claim 16 is objected to because it would not be obvious to the examiner, as well as one skilled in the art, what applicant defined as “about a diameter of the pass-through circle”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Charles et al. (US 6,397,958).

Charles et al. discloses a reaming tool that includes the following features:

Art Unit: 3672

- A body **102** adapted the couple to a drill string at both axial ends thereof (Figures 1A and 1B).
- A plurality of reaming blades **108-110** affixed to the body.
- Selected blades have at least one cutter **130** attached thereto and at least one insert **140** on a laterally outermost surface.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Charles et al. (US 6,397,958) in view of Beaton et al. (US 6,269,893).

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Charles et al. discloses all of the limitations of the above claims except for select ones of the plurality of reaming blades having a spiral structure.

Art Unit: 3672

Beaton et al. discloses a reaming tool similar to that of Charles et al. Beaton et al. further teaches reaming blades that have a spiral structure (4:53-57).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Charles et al. such that select ones of the plurality of reaming blades had a spiral structure as taught by Beaton et al. in order to have improved drilling stability of the bit (2:46-53). Bit stability would have been important in order to have maintained an accurate drill path.

9. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fielder (US 5,678,644) in view of Charles et al. (US 6,397,958).

Regarding claim 16: Fielder discloses a reaming tool that includes the following features:

- A body 2 having a plurality of reaming blades 8 affixed thereto.
- The reaming blades include at least one radially most extensive reaming blade that defines a drill circle (Figure 3B) substantially coaxial with a longitudinal axis of the body.
- The reaming blades include at least two radially less extensive reaming blades azimuthally spaced apart so as to define a pass-through circle smaller than and axially offset from the drill circle (Figure 3C). The at least one radially most extensive blade substantially avoids contact when passing through an opening having a diameter about that of the pass-through circle.

Fielder discloses all of the limitations of the above claims except for the body being adapted to couple to a drill string at both axial ends.

Charles et al. discloses a reaming tool similar to that of Fielder. Charles et al. further teaches that the reaming tool has a body that is adapted to couple to a drill string at both axial ends (Figures 1A and 1B).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Fielder such that the body was adapted to couple to a drill string at both axial ends as taught by Charles et al. in order to have been

Art Unit: 3672

able to connect the tool to a bottomhole assembly (6:60-63). This would have allowed the tool be used for operations other than enlarging the wellbore such as cleaning out the wellbore (5:54-62).

Regarding claim 17: Fielder discloses all of the limitations of the above claims except for select ones of the at least one radially most extensive reaming blades including wear resistant inserts on laterally outermost surfaces thereof.

Charles et al. further teaches wear resistant inserts **140** located on the laterally outermost surface of the at least one radially most extensive reaming blades.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Fielder to include wear resistant inserts located on the laterally outermost surface of the at least one radially most extensive reaming blades as taught by Charles et al. in order to have controlled wear of the blades (5:17-22). Control of the wear of the blades would have increased the life of the bit.

Allowable Subject Matter

10. Claims 10-13 are allowed.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

Art Unit: 3672

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claim 16 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,386,302. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 16 of the instant application is merely a broader recitation of claim 1 in the above patent.

Claim 1 of U.S. Patent No. 6,386,302 recites a body adapted to couple to a drill string at both axial ends (lines 3 and 4), a plurality of reaming blades affixed to the body (lines 2 and 3) where the reaming blades include at least one radially most extensive reaming blade (lines 6-8, the body includes radially least extensive blade so must include a radially most extensive blade) defining a drill circle substantially coaxial with the longitudinal axis of the body (lines 10 and 11) and at least two radially less extensive blades (lines 2 and 3) azimuthally spaced apart (lines 2 and 3) so as to define a pass-through circle (lines 6-9) smaller than and axially offset from the drill circle (lines 10 and 11), wherein the at least one radially most extensive blade substantially avoids contact when passing through an opening having about a diameter of the pass-through circle (lines 18-21).

13. Claims 16 and 17 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 8, and 9 of U.S. Patent No. 6,609,580. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 16 and 17 of the instant application are merely a broader recitation of claims 1, 8, and 9 in the above patent.

Regarding claim 16: Claims 1 and 8 of U.S. Patent No. 6,609,580 recites a body adapted to couple to a drill string at both axial ends (lines 7 and 8 of claim 1), a plurality of reaming blades affixed to the body (line 2) where the reaming blades include at least

Art Unit: 3672

one radially most extensive reaming blade (lines 1-3 of claim 8, the body includes radially least extensive blade so must include a radially most extensive blade) defining a drill circle substantially coaxial with the longitudinal axis of the body (lines 5 and 6 of claim 8) and at least two radially less extensive blades (lines 1-3 of claim 8) azimuthally spaced apart (lines 2 and 3 of claim 1) so as to define a pass-through circle (line 4 of claim 8) smaller than and axially offset from the drill circle (lines 6 and 7 of claim 8), wherein the at least one radially most extensive blade substantially avoids contact when passing through an opening having about a diameter of the pass-through circle (lines 9-15 of claim 8).

Regarding claim 17: Claim 9 of U.S. Patent No. 6,609,580 recites selected ones of the at least one radially most extensive reaming blades include wear resistant inserts on laterally outermost surfaces thereof.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

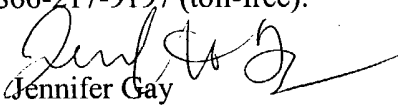
The remaining references made of record disclose various wellbore reamers and pilot bits.


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H Gay whose telephone number is (703) 308-2881. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jennifer Gay
Patent Examiner
Art Unit 3672

JHG 
August 5, 2004